UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,624	07/19/2001	Sheng Li	03442P012	9984

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EXAMINER
ABRAHAM, ESAW T

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/909,624	LI, SHENG
	Examiner	**Art Unit**	
	Esaw T Abraham	2133	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/20/04 (amndt after final)*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,9-15 and 17-22* is/are rejected.

7)☒ Claim(s) *7, 8, 23 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07/19/01* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to the applicant's amendments

Applicants argument with respect to original claims 1-8, 10-24 and amended claim 9 filled in 12/20/04 have been fully considered but they are not persuasive. Therefore, the rejection in view of Jonsson and Kato made on 08/16/04 stands active.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/20/04 has been entered.

Response to the applicant's argument

The applicant contends that the prior art Kato does not disclose or teach calculating independent data segments. However, the examiner disagrees since Kato in figures 5b and 5c teach or disclose transmitted data divided into blocks or segments and each of the data blocks comprise CRC codes for detecting errors. In light of the above, the inclusion of the term "independent" in the claims does not change the concept of the claimed invention such that it is allowable over the prior art of record. This is so because the process of detecting errors in each blocks performing is error check individually although the term is not used by the prior art. Therefore, the application of the prior art in relation to the claimed invention is appropriate.

DETAILED ACTION

1.   Claims **1-15 and 17-24** are presented for examination.

Claim objections

2.   Claims 1 and 9 are objected to because of the following informalities:

Claims 1 and 9 recites, "A method comprising the steps of" and "An apparatus comprising" **in the preamble**. CFR § 1.75 states that the specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention or discovery. A method does not indicate what a subject matter the claims are directed to. The examiner suggests that following "A method for delivering real-time multimedia data comprising the steps of" (in claim 1) and "An apparatus for delivering real-time multimedia data comprising" (in claim 9).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U. S. C 112

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant.

3.   Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 recites "said data packet" which is inconsistent with what was previously recited (i.e. a first data packet") (see claim 1 line 6). There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section

102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to

which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness
    or nonobviousness.

4. Claims **1-6, 9-15, 17, 18-22** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Jonsson (U.S. PN: 6,609,224) in view of Kato (U.S. PN: 5,844,918).

As per claims **1, 9 and 17,** Jonsson substantially teach or disclose in figure 1 disclose a

typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Data

gram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header

section (12) (including source port, destination port, length and checksum) and a payload section

(14) (see col. 1, lines 24-47). Further, Jonnson teach that checksums are used by the UDP and

RTP transport layer protocols to detect errors in a single data packet and such transport layer

checksums are calculated to provide coverage for the entire data packet (e.g., header and

payload), included in the transport layer header as one of the header fields (see in fig. 1 element

16) and calculation of the checksum is performed by adding together all the octets of data in the

packet to be transmitted (see col. 2, lines 48-60). Furthermore, Jonnson teach that the checksum field occupies two octets in most cases and is used to verify the correctness of the transport layer packet and IP version 4 (IPv4) provides an option to disable the checksum (see col. 3, lines 24-30). Jonsson **does not explicitly** teach calculating data integrity (checksum function) for data segments to be transmitted within the data packet. **However,** Kato in figure 5 teach a segmentation circuit (14) divides a transmission data into a fixed length (see figure 5b), an error detecting code addition circuit (16) added an error detecting code (CRC) to the thus-divided data segments (see figure 5c), the header addition circuit (20) further appends a packet header to each data segment complete with the CRC code, whereby a transmission data packet is generated (see figure 5d and col. 5, lines 28-35). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to combine (incorporate) the teachings of Jonsson with the method of adding error correction codes (checksum or CRC codes) into independent segments as taught by Kato to provide a service option in which errors are detected separately. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because it would provide in achieving a reduction in power and resource consumption.

As per claims **2, 3, 10, 11, 18 and 19,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17 including Jonnson teach that checksums are used by the UDP and RTP transport layer protocols to detect errors in a single data packet and such transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload), included in the transport layer header as one of the header fields (see in fig. 1 element

16) and calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted (see col. 2, lines 48-60).

As per claims **4, 12 and 20,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17, including Jonsson teach that a speech data is presently transported over the Internet using IP-based transport layer protocols such as the (UDP) and (RTP) and wherein a software converts speech into digital data which is then assembled into data packets suitable for transport over the Internet using the IP-based transport layer protocols (see col. 1, lines 24-32).

As per claims **5, 13, and 21,** Jonsson in view of Kato teach all the subject matter claimed in claims 1 and 17 including Kato teach the digital transmission method defined as basic data is a video (audio) signal, and the basic data is transmitted in accordance with a TDMA/TDD method in the transmission step (see claim 4).

As per claims **6, 14 and 22,** Jonsson in view of Kato teach all the subject matter claimed in claims 1, 9 and 17. Jonsson in view of Kato **do not explicitly** teach setting a checksum packet to zero. **However,** Jonsson teach that one of the checksum field occupies two octets in most cases and is used to verify the correctness of the transport layer packet and IP version 4 (IPv4) provides an option to disable the checksum (see col. 3, lines 24-30) which the system of Jonnson basically teach the option of disabling the checksum or setting the function of checksum to zero. **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to disable or set a checksum to zero in order to maximize the option of error detection process. **This modification** would have been obvious

because a person having ordinary skill in the art would have been motivated in order to

facilitate utilization of flexible and efficient error detecting/correcting operations.

As per claim **15,** Jonsson in view of Kato teach all the subject matter claimed in claims 1,

9 and 17 including Jonsson substantially teach or disclose in figure 1 disclose a typical packet

(10) conforming to the IP-based transport layer protocols, such as UDP (User Data gram

Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header

section (12) (including source port, destination port, length and checksum) and a payload

section (14) (see col. 1, lines 24-47). Jonsson in view of Kato teach all the subject matter

claimed in claims 1, 9 and 17. Jonsson in view of Kato **do not explicitly** teach setting a

checksum packet to zero. **However,** Jonsson teach that one of the checksum field occupies two

octets in most cases and is used to verify the correctness of the transport layer packet and IP

version 4 (IPv4) provides an option to disable the checksum (see col. 3, lines 24-30) which the

system of Jonnson basically teach the option of disabling the checksum or setting the function

of checksum to zero. **Therefore,** it would have been obvious to a person having an ordinary

skill in the art at the time the invention was made to disable or set a checksum to zero to

maximize the option of error detection process. **This modification** would have been obvious

because a person having ordinary skill in the art would have been motivated in order to

facilitate utilization of flexible and efficient error detecting/correcting operations.

Allowable subject matter

5.   Claim **7, 8, 23, 24** are objected to as being dependent upon a rejected base claim but

would be allowable if rewritten independent from including all of the limitation of the base claim

and any intervening claims.

The claimed invention comprises a method comprising receiving a data packet as a client

and determining whether any of the independent data segments are corrupt based on said data

integrity information and discarding any independent data segments which are corrupt **(as in**

claim 7) which the prior art do not teach or render obvious.

Claim **8,** which are directly or indirectly dependents of claim 7 are also objected.

The claimed invention comprises a method comprising receiving a data packet as a client

and determining whether any of the independent data segments are corrupt based on said data

integrity information and discarding any independent data segments which are corrupt **(as in**

claim 23) which the prior art do not teach or render obvious.

Claim 24, which are directly or indirectly dependents of claim 23 are also objected.

Conclusion

6.   Any inquiry concerning this communication or earlier communication from the examiner

should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner

can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor,

Albert DeCady can be reached on (571) 272-3819. The fax phone numbers for the organization

where this application or proceeding is assigned are (703) 746-7239 for regular communications

and (703) 746-7238 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Esaw Abraham
Esaw Abraham

Art unit: 2133

Guy J. Lamarre

Primary Examiner